

# Cold winter boosts demand

## Total Energy

### Consumption higher

Total inland energy consumption on a primary fuel input basis during the three month period November to January was more than 7 per cent higher than in the corresponding period a year ago. Coal consumption rose by nearly 9 per cent while of the other principal primary fuels, natural gas and petroleum were higher by nearly 8 per cent and nearly 5 per cent respectively.

During the period as a whole, temperatures were substantially lower than a year ago and after correction for temperature and seasonal adjustment, consumption measured at an annual rate was running at a level of about 4 per cent above last year.

## Coal

### Overall increase in demand, but output still low

Deep-mined coal output in the three month period December to February was 3.7 per cent lower than during the comparable period a year ago. Opencast coal production remained virtually at last year's level for the period as a whole, but output in January and February has been below that of a year ago.

Total coal consumption during the period was 7.7 per cent higher than a year ago, with the greater part of the increase attributable to the additional 2 million tons used at power stations. Coke oven consumption rose by over 9 per cent and disposals to industry were 12 per cent higher. House coal was in greater demand in the domestic sector but there was a decline of 12 per cent in disposals of anthracite and dry steam coal.

Stocks continued to fall in all sectors except coke ovens during February and at the end of the month were lower than a year ago in virtually every sector.

Productivity measured in terms of output per manshift improved in February to 45.2 cwts, the highest level achieved for nine months, but was still well below last year's level.

## Gas

### Small decline in February

Total gas sent out in the three month period December to February was over 7 per cent greater than in the corresponding three month period a year ago. The increase was however concentrated in the first two months of the period and total gas sent out in February fell away to nearly 4 per cent below the level of February 1976, which was markedly colder than this year.

## Electricity

### Record levels in January

During the three month period November to January, total electricity supplied was 8.5 per cent higher than during the comparable period a year ago. In January, electricity supplied rose steeply above last year's level, although the increase of over 15 per cent was to a large extent attributable to the very much colder weather this year.

Measured in terms of weekly averages, total fuel use, coal use and electricity supplied were each higher than previously recorded. The simultaneous maximum load met at any one time (not shown in *Energy Trends* tables) reached 49,100 Megawatts during the month, the highest demand yet placed on the public supply system.

## Petroleum

### Heating oils in demand

Refinery receipts of crude oil during the three month period November to January were nearly 26 million tonnes, 12.5 per cent more than during the comparable period a year ago. North Sea crude oil accounted for over a fifth of the total. Output of refined products rose in total by 7.8 per cent with output of motor spirit and fuel oil higher by 11.6 per cent and 12.3 per cent respectively.

Total inland deliveries of products during the period rose by 4.3 per cent and, with the exception of naphtha and bitumen, all products were in greater demand than a year ago. Deliveries of the principal products used by industry and commerce, (fuel oil and gas/diesel oil) were each higher by 2 per cent and 10.9 per cent respectively but in each case the major part of the increase was concentrated in January, a much colder month than last year. The effects of the lower temperatures are also evident in the sharp rise in deliveries of premium grade burning oil, used largely for supplementary domestic heating and in standard grade burning oil which fuels most domestic oil central heating systems.

## Supplementary Data

### Industrial fuel prices

Provisional results for the fourth quarter of 1976 are now available and are shown on the final table of this month's bulletin. Some minor revisions have been made to previously published figures for the third quarter.

The results from the large consumers inquiry show increases in average prices for all fuels during the fourth quarter ranging from nearly 8 per cent on coal to 12½ per cent on gas. Prices for new or renewed contracts for oil exhibited even sharper rises of nearly 22½ per cent on heavy fuel oil and nearly 16½ per cent on gas oil compared with the third quarter.

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Figures for the latest periods and the corresponding averages or totals are provisional and are liable to subsequent revision.

The figures have not been adjusted for temperature or seasonal factors except where noted in Table 1. Monthly figures relate to four week periods except where otherwise indicated.

Percentage changes relate to the corresponding period a year ago. They are calculated from unrounded figures but are shown only as (+) or (–) when the percentage change is very large.

All figures relate to the United Kingdom unless otherwise indicated.

Explanatory notes on the definitions and concepts used in the tables and on the relationship between some of the main series are given in the Supplement to the March 1976 issue of *Energy Trends* and on the first page of the August 1976 issue. Extra copies of that Supplement may be obtained from the Department of Energy.

#### Symbols used in the tables

- .. not available.
- nil or less than half the final digit shown.
- \* five-week period.
- p provisional.

## Total energy

TABLE 1. Inland energy consumption: primary fuel input basis

	Total	Coal <sup>1</sup>	Petroleum <sup>2</sup>	Natural gas <sup>3</sup>	Nuclear electricity	Hydro-electricity	Total	Coal <sup>1</sup>	Petroleum <sup>2</sup>	Natural gas <sup>3</sup>	Nuclear electricity	Hydro-electricity
	Million tons of coal or coal equivalent						Million metric tonnes of oil or oil equivalent					
1971	325.7	137.1	148.8	28.4	9.7	1.7	194.9	82.0	89.0	17.0	5.8	1.1
1972	332.7	120.5	159.6	40.3	10.5	1.8	198.8	72.0	95.4	24.0	6.3	1.1
1973	347.9	130.8	161.6	43.6	9.9	2.0	207.9	78.2	96.6	26.0	5.9	1.2
1974	332.2	116.0	150.1	52.1	11.9	2.1	198.6	69.3	89.7	31.2	7.1	1.3
1975	319.7	118.1	134.4	54.5	10.8	1.9	191.1	70.6	80.3	32.6	6.4	1.2
1976 p	324.7	120.5	132.0	57.6	12.7	1.9	194.1	72.0	79.0	34.4	7.6	1.1
Per cent change	+1.6	+2.0	–1.7	+5.6	+17.8	–4.4	+1.6	+2.0	–1.7	+5.6	+17.8	–4.4
1975 Nov	27.6	10.0	10.8	5.8	0.9	0.1	16.5	6.0	6.4	3.5	0.5	0.1
Dec*	35.4	13.0	14.6	6.4	1.2	0.2	21.2	7.8	8.8	3.8	0.7	0.1
1976 Jan	28.2	9.9	10.6	6.4	1.0	0.3	16.9	5.9	6.4	3.8	0.6	0.2
Total	91.2	32.9	36.0	18.6	3.1	0.6	54.6	19.7	21.6	11.1	1.8	0.4
1976 Nov	28.7	10.4	11.0	6.0	1.1	0.2	17.2	6.2	6.6	3.6	0.7	0.1
Dec*	38.0	14.4	15.3	6.8	1.3	0.2	22.7	8.6	9.1	4.1	0.8	0.1
1977 Jan p	31.1	11.0	11.6	7.2	1.1	0.2	18.6	6.6	6.9	4.3	0.7	0.1
Total	97.8	35.8	37.9	20.0	3.5	0.6	58.5	21.4	22.6	12.0	2.2	0.3
Per cent change	+7.2	+8.9	+4.9	+7.9	+15.3	–16.8	+7.2	+8.9	+4.9	+7.9	+15.3	–16.8

Seasonally adjusted and temperature corrected<sup>4</sup> (annual rates)

1975 Nov	311.3	117.5	122.0	57.9	11.8	2.1	186.1	70.2	73.0	34.6	7.0	1.3
Dec*	321.4	120.1	128.2	60.2	11.7	1.2	192.1	71.8	76.6	36.0	7.0	0.7
1976 Jan	316.1	123.0	123.5	57.6	10.2	1.8	188.9	73.5	73.8	34.4	6.1	1.1
Average	316.7	120.2	124.9	58.7	11.3	1.6	189.3	71.8	74.6	35.1	6.8	1.0
1976 Nov	321.4	121.0	124.7	59.5	14.0	2.2	192.1	72.3	74.6	35.6	8.3	1.3
Dec*	332.7	128.1	126.2	64.1	13.2	1.1	198.9	76.6	75.4	38.3	7.9	0.7
1977 Jan p	332.6	124.5	129.4	65.4	12.2	1.1	198.7	74.4	77.3	39.1	7.3	0.6
Average	329.2	124.8	126.7	63.1	13.1	1.5	196.8	74.6	75.8	37.7	7.8	0.9
Per cent change	+4.0	+3.8	+1.5	+7.5	+16.0	–10.7	+4.0	+3.8	+1.5	+7.5	+16.0	–10.7

1. Consumption by fuel producers plus colliery disposals to final users, plus (for annual figures only) net foreign trade and stock change in other solid fuels. 2. Refinery throughput of crude oil, plus net foreign trade and stock change in petroleum products, less deliveries of non energy products. 3. Excluding gas flared or reinjected. 4. Only coal and petroleum are temperature corrected.

### Energy: Total inland consumption (primary fuel input basis)<sup>1</sup>

Million tons  
coal equivalent

Million tonnes  
oil equivalent

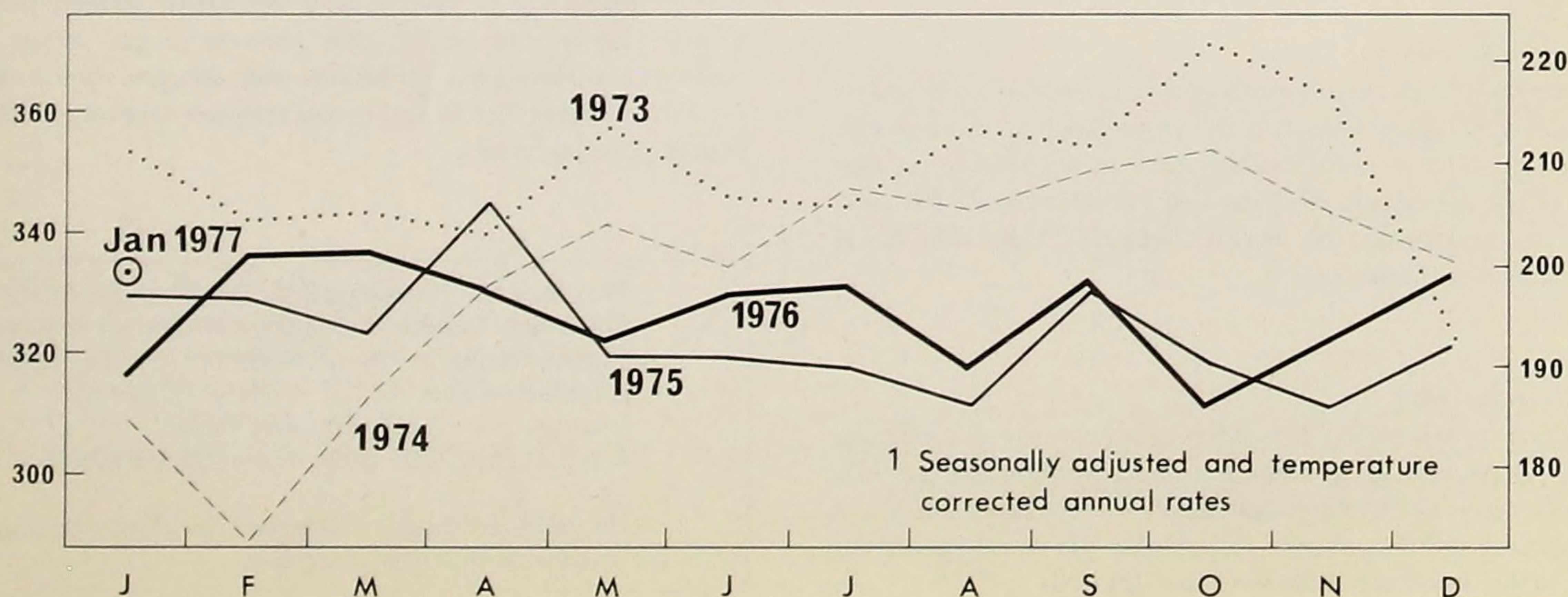




TABLE 2. Supply and use of fuels

Million therms

	1974	1975	Per cent change	1974		1975				1976p			Per <sup>1</sup> cent change
				3rd quarter	4th quarter	1st quarter	2nd quarter	3rd quarter	4th quarter	1st quarter	2nd quarter	3rd quarter	
PRIMARY FUELS AND EQUIVALENTS:													
Production of primary fuels													
Coal	27,245	31,430	+15.4	7,024	8,355	8,482	7,904	6,602	8,442	7,941	7,672	6,420	-2.8
Petroleum <sup>2</sup>	174	665	(+)	31	51	56	57	137	415	564	1,003	1,311	(+)
Natural gas <sup>3</sup>	13,040	13,578	+4.1	2,279	3,967	4,193	2,980	2,191	4,214	4,734	2,977	2,189	-0.1
Primary electricity	3,279	2,982	-9.1	657	867	944	617	580	841	925	779	767	+32.2
Total	43,738	48,655	+11.2	9,991	13,240	13,675	11,558	9,510	13,912	14,164	12,431	10,687	+12.4
Arrivals. Petroleum <sup>4</sup>	54,067	44,216	-18.2	12,300	13,394	11,378	11,200	10,521	11,117	10,967	10,924	10,200	-3.1
Other	1,171	1,616	+38.0	289	323	389	417	380	430	325	310	252	-33.7
Shipments	7,628	7,243	-5.0	2,230	2,051	1,730	1,638	1,993	1,882	1,724	2,044	2,478	+24.3
Bunkers	1,954	1,418	-27.4	499	450	375	345	354	344	372	346	381	+7.6
Stock change <sup>5</sup>													
Solid fuels	+1,921	-2,576	. .	-159	+104	+103	-1,085	-891	-703	+323	-859	-395	. .
Crude petroleum	-959	+475	. .	-113	+256	+425	-248	+220	+78	+353	-196	-251	. .
Petroleum products	-1,081	+978	. .	-345	+349	+754	+20	-503	+707	+649	-431	-367	. .
Non energy use	5,233	4,106	-21.5	1,306	1,146	1,055	956	960	1,135	1,132	1,111	1,122	+16.9
Statistical difference <sup>6</sup>	-203	-176	. .	-41	-9	-168	+17	-13	-12	+83	+49	+61	. .
Total primary <sup>7</sup> energy input	83,839	80,421	-4.1	17,887	24,010	23,396	18,940	15,917	22,168	23,636	18,727	16,206	+1.8
Conversion losses etc. <sup>8</sup>	25,550	24,547	-3.9	5,446	7,592	6,995	5,693	4,954	6,905	6,845	5,606	4,847	-2.2
FINAL CONSUMPTION BY USER:													
Iron and steel industry													
Coal	99	72	-27.3	16	26	25	18	10	19	23	15	9	-10.0
Other solid fuel <sup>9</sup>	2,681	2,374	-11.5	718	673	746	575	482	571	617	703	655	+35.9
Other coal-derived fuels <sup>10</sup>	374	372	-0.5	92	104	107	97	76	92	98	109	98	+28.9
Gas <sup>11</sup>	395	371	-6.1	86	97	101	91	79	100	108	112	99	+25.3
Electricity	345	344	-0.3	84	93	94	84	75	91	100	95	90	+20.0
Petroleum	1,648	1,357	-17.7	347	451	449	334	244	330	354	306	273	+11.9
Total	5,542	4,890	-11.8	1,343	1,444	1,522	1,199	966	1,203	1,300	1,340	1,224	+26.7
Other industries													
Coal	2,795	2,458	-12.1	733	746	660	613	528	657	547	564	470	-11.0
Other solid fuel <sup>9</sup>	193	164	-15.0	53	51	47	47	40	30	38	23	28	-30.0
Other coal-derived fuels <sup>10</sup>	63	78	+23.8	18	17	17	23	22	16	18	27	17	-22.7
Gas <sup>11</sup>	4,692	4,701	+0.2	1,041	1,273	1,295	1,091	1,007	1,308	1,457	1,236	1,083	+7.5
Electricity	2,247	2,234	-0.6	553	618	589	542	510	593	619	563	544	+6.7
Petroleum	8,264	7,426	-10.1	1,567	2,367	2,140	1,770	1,299	2,217	2,268	1,708	1,404	+8.1
Total	18,254	17,061	-6.5	3,965	5,072	4,748	4,086	3,406	4,821	4,947	4,121	3,546	+4.1
Transport sector													
Coal	24	19	-20.8	4	8	6	3	3	7	7	4	2	-33.3
Electricity	92	99	+7.6	23	25	26	25	23	25	27	24	23	-
Petroleum	12,295	12,143	-1.2	3,289	3,136	2,771	3,104	3,225	3,043	2,889	3,198	3,333	+3.3
Total	12,411	12,261	-1.2	3,316	3,169	2,803	3,132	3,251	3,075	2,923	3,226	3,358	+3.3
Domestic sector													
Coal	3,957	3,381	-14.6	952	1,160	1,013	903	699	766	932	765	634	-9.3
Other solid fuel <sup>9</sup>	1,102	962	-12.7	282	297	270	231	260	201	284	202	213	-18.1
Gas <sup>11</sup>	5,384	5,891	+9.4	696	1,698	2,329	1,119	615	1,828	2,403	1,054	686	+11.5
Electricity	3,161	3,035	-4.0	536	915	1,037	678	484	836	987	596	469	-3.1
Petroleum	1,482	1,434	-3.2	188	501	473	306	194	461	519	268	176	-9.3
Total	15,086	14,703	-2.5	2,654	4,571	5,122	3,237	2,252	4,092	5,125	2,885	2,178	-3.3
Other final users <sup>12</sup>													
Coal	669	490	-26.8	125	213	129	123	78	160	172	112	73	-6.4
Other solid fuel <sup>9</sup>	276	219	-20.7	65	65	64	49	63	43	55	47	40	-36.5
Gas <sup>11</sup>	1,269	1,347	+6.1	173	387	472	310	171	394	570	320	177	+3.5
Electricity	1,447	1,548	+7.0	307	455	460	347	302	439	479	350	310	+2.6
Petroleum	3,335	3,355	+0.6	493	1,042	1,081	764	474	1,036	1,220	720	453	-4.4
Total	6,996	6,959	-0.5	1,163	2,162	2,206	1,593	1,088	2,072	2,496	1,549	1,053	-3.2
Total final users	58,289	55,874	-4.1	12,441	16,418	16,401	13,247	10,963	15,263	16,791	13,121	11,359	+3.6
FINAL CONSUMPTION BY FUEL:													
Coal	7,544	6,420	-14.9	1,830	2,153	1,833	1,660	1,318	1,609	1,681	1,460	1,188	-9.9
Other solid fuel <sup>9</sup>	4,252	3,719	-12.5	1,118	1,086	1,127	902	845	845	994	975	936	+10.8
Other coal-derived fuels <sup>10</sup>	437	450	+3.0	110	121	124	120	98	108	116	136	115	+17.3
Gas <sup>11</sup>	11,740	12,310	+4.9	1,996	3,455	4,197	2,611	1,872	3,630	4,538	2,722	2,045	+9.2
Electricity	7,292	7,260	-0.4	1,503	2,106	2,206	1,676	1,394	1,984	2,212	1,628	1,436	+3.0
Petroleum	27,024	25,715	-4.8	5,884	7,497	6,914	6,278	5,436	7,087	7,250	6,200	5,639	+3.7
Total all fuels	58,289	55,874	-4.1	12,441	16,418	16,401	13,247	10,963	15,263	16,791	13,121	11,359	+3.6

1. Per cent change on the corresponding period of the previous year. 2. Crude petroleum and natural gas liquids. 3. Excluding gas flared or reinjected. 4. Crude petroleum, process oils and petroleum products. 5. Stock fall (+) stock rise (-). 6. Supply greater than recorded demand (-). 7. Thermal equivalent of total inland energy consumption in Table 1. A more detailed analysis of the annual figures is shown in the Digest of United Kingdom Energy Statistics 1976 Tables 8 and 10. 8. Losses in conversion and distribution and used by fuel industries. 9. Coke and other manufactured solid fuels. 10. Coke oven gas, creosote/pitch mixtures and other liquid fuels derived from coal. 11. Natural gas supplied direct, and town gas. 12. Mainly public administration, commerce and agriculture.



# Coal

TABLE 3. Supply

Thousand tons

	Net inland supply	Production			Net Imports	Imports <sup>2</sup>	Exports <sup>2</sup>	Tonnage lost (deep-mined) <sup>3</sup>	
		Total <sup>1</sup>	Deep-mined	Opencast				Recognised holidays and rest days	Disputes
1971	148,603	147,081	134,322	10,498	+1,522	4,174	2,652	11,045	4,734
1972	123,125	119,927	107,390	10,261	+3,198	4,919	1,721	10,244	22,400
1973	128,904	129,906	118,140	9,964	-1,002	1,649	2,651	10,313	5,569
1974	110,362	108,707	98,413	9,035	+1,655	3,491	1,836	10,352	15,996
1975	129,505	126,650	115,557	10,249	+2,855	5,003	2,148	12,105	347
1976 p	123,224	121,845	108,523	11,755	+1,379	2,792	1,413	12,150	1,140
Per cent change	-4.9	-3.8	-6.1	+14.7	-51.7	-44.2	-34.2	+0.4	(+)
1975 Dec*	12,509	12,228	11,072	976	+281	435	154	1,434	23
1976 Jan	8,528	8,428	7,670	658	+100	200	100	2,180	33
Feb	10,973	10,747	9,660	940	+226	322	96	-	155
Total	32,010	31,403	28,402	2,574	+607	957	350	3,614	211
1976 Dec*	12,476	12,510	11,264	1,106	-34	115	149	573	38
1977 Jan	7,472	7,285	6,638	608	+187	277	90	2,619	78
Feb p	10,314	10,407	9,453	856	-93	106	199	-	51
Total	30,262	30,202	27,355	2,570	+60	498	438	3,192	167
Per cent change	-5.5	-3.8	-3.7	-0.2	-90.1	-48.0	+25.1	-11.7	-20.9

1. Includes an estimate for slurry, etc., recovered and disposed of otherwise than by the National Coal Board.

2. As recorded in the "Overseas Trade Statistics of the United Kingdom". 3. NCB mines only.

TABLE 4. Inland consumption of coal

Thousand tons

	Total inland consumption	Fuel producers					Final users <sup>1</sup>			
		Primary	Secondary				Colliery disposals			
		Collieries	Power stations <sup>2</sup>	Coke ovens	Gas works	Other <sup>3</sup> conversion industries	Industry <sup>4</sup>	Domestic <sup>5</sup>		Other <sup>8</sup>
								House Coal <sup>6</sup>	Other <sup>7</sup>	
1971	138,705	1,556	71,696	23,182	1,826	4,406	15,581	15,366	1,621	3,471
1972	120,945	1,383	65,611	20,152	566	4,475	11,478	12,569	1,756	2,955
1973	131,288	1,359	75,628	21,543	504	3,550	11,890	12,519	1,755	2,540
1974	116,043	1,236	65,967	18,169	105	3,728	10,902	11,848	1,623	2,465
1975	120,303	1,218	73,391	18,783	9	3,999	9,532	9,844	1,609	1,918
1976 p	121,741	1,115	76,589	19,171	8	3,351	8,828	9,377	1,289	2,013
Per cent change	+1.2	-8.5	+4.4	+2.1	-11.1	-16.2	-7.4	-4.7	-19.9	+5.0
1975 Dec*	13,002	133	8,572	1,709	1	375	922	886	133	271
1976 Jan	9,881	85	6,660	1,369	1	284	580	618	106	178
Feb	11,510	115	7,740	1,395	1	295	732	886	109	237
Total	34,393	333	22,972	4,473	3	954	2,234	2,390	348	686
1976 Dec*	14,395	128	9,633	1,884	1	272	1,075	999	123	280
1977 Jan	10,994	74	7,735	1,479	1	213	602	645	71	174
Feb p	11,645	98	7,740	1,516	1	205	826	913	112	234
Total	37,034	300	25,108	4,879	3	690	2,503	2,557	306	688
Per cent change	+7.7	-9.9	+9.3	+9.1	-	-27.7	+12.0	+7.0	-12.1	+0.3

1. Disposals by collieries and opencast sites. 2. Public supply and railway and transport power stations. 3. Low temperature carbonisation & patent fuel plants. 4. Prior to October 1973 the figures relate to actual consumption. 5. Prior to April 1973 the figures relate to merchants' disposals to the domestic market. 6. Including miners' coal. 7. Anthracite, dry steam coal and imported naturally smokeless fuels. 8. Mainly public administration & commerce.

TABLE 5. Stocks of coal<sup>1</sup> at end of period: Great Britain

Thousand tons

	Total	Distributed					Undistributed		
		Total distributed stocks	Power stations	Coke ovens	Gas works	Other	Total undistributed stocks	Collieries	Opencast sites and central stocking grounds
1971	28,211	17,982	15,712	1,777	72	421	10,229	6,973	3,256
1972	29,979	19,045	16,791	1,890	50	314	10,934	7,558	3,376
1973	27,445	16,766	14,537	1,937	27	265	10,679	7,529	3,150
1974	21,462	15,577	13,414	1,822	3	338	5,885	3,946	1,939
1975	30,666	20,216	17,668	2,296	2	250	10,450	8,767	1,683
1976 p	32,580	22,090	19,288	2,630	2	170	10,490	9,148	1,342
1975 Dec	30,666	20,216	17,668	2,296	2	250	10,450	8,767	1,683
1976 Jan	29,743	18,865	16,416	2,207	2	240	10,878	9,264	1,614
Feb	29,274	18,420	15,776	2,403	1	240	10,854	9,351	1,503
1976 Dec	32,580	22,090	19,288	2,630	2	170	10,490	9,148	1,342
1977 Jan	29,081	18,918	16,463	2,292	3	160	10,163	8,919	1,244
Feb p	27,791	18,150	15,644	2,344	2	160	9,641	8,568	1,073
Absolute change:									
In latest month	-1,290	-768	-819	+52	-1	-	-522	-351	-171
On a year ago	-1,483	-270	-132	-59	+1	-80	-1,213	-783	-430

1. Excluding distributed stocks held in merchants' yards, etc., mainly for the domestic market, and stocks held by the industrial sector.



TABLE 6. Colliery manpower and productivity at NCB mines

	Wage earners on colliery books <sup>1</sup>		Recruitment	Wastage	Absence percentage <sup>2</sup>			Average output per manshift <sup>3</sup>	
	Total	Underground			Total	Voluntary	Involuntary	Overall	At the face
	Thousands	Number	Per cent	Cwt.					
1971	279	218	28,010	32,309	18.1	4.4	13.7	43.94	143.08
1972	266	210	13,255	26,114	16.6	3.9	12.7	43.60	144.35
1973	245	193	17,402	37,961	18.0	4.1	13.9	45.00	150.00
1974	246	194	26,436	25,133	16.3	4.1	12.2	42.83	..
1975	245	194	21,347	22,451	16.2	4.0	12.2	44.92	155.85
1976 p	241	192	17,061	21,239	17.4	3.7	13.7	43.81	152.59
1975 Dec*	245	194	874	2,151	16.2	3.9	12.3	45.24	156.22
1976 Jan	245	194	1,069	1,554	15.9	3.3	12.6	44.88	155.89
Feb	244	194	1,252	1,821	19.9	4.4	15.5	46.33	158.17
1976 Dec*	241	192	1,408	1,877	18.0	4.1	13.9	44.55	155.38
1977 Jan	241	191	1,412	1,607	18.0	3.6	14.4	43.09	153.85
Feb p	241	192	2,066	1,841	19.4	4.1	15.3	45.16	155.77

1. At end of period. 2. The definition was changed from 1973. 3. Excluding capital working and tip coal.

## Gas

TABLE 7. Sources of supply and send-out by the public gas supply system

	Natural gas supply			Other fuel used		Gas sent out		
	Total into system	Source <sup>1</sup>		Coal	Oil <sup>2</sup>	Total	Town gas	Natural gas for direct supply
		Indigenous	Imported					
Million therms				Thousand tons		Million therms		
1971	6,977	6,660	317	1,770	2,547	8,061	4,069	3,992
1972	10,071	9,775	296	559	2,170	10,614	3,415	7,199
1973	10,916	10,639	277	503	2,286	11,620	2,434	9,186
1974	13,102	12,861	241	105	1,256	13,451	1,598	11,853
1975	13,692	13,367	325	9	579	13,822	752	13,070
1976	14,420	14,030	390	8	241	14,445	226	14,219
Per cent change	+5.3	+5.0	+20.0	-11.1	-58.4	+4.5	-69.9	+8.8
1975 Dec*	1,827	1,794	33	1	35	1,848	55	1,793
1976 Jan	1,383	1,348	35	1	30	1,377	39	1,338
Feb	1,621	1,581	40	1	41	1,625	41	1,584
Total	4,831	4,723	108	3	106	4,850	135	4,715
1976 Dec*	2,006	1,975	31	1	24	2,001	14	1,987
1977 Jan	1,647	1,623	24	1	28	1,644	12	1,632
Feb p	1,550	1,526	24	1	18	1,553	11	1,542
Total	5,203	5,124	79	3	70	5,198	37	5,161
Per cent change	+7.7	+8.5	-26.9	+8.0	-34.0	+7.2	-72.6	+9.5

1. Figures differ from production and imports respectively because of stock changes and small quantities not entering the public supply system.

2. Mainly naphtha (LDF), liquid petroleum gases and refinery gases.

TABLE 8. Sales of gas by the public supply system

Million therms

	Total	Power stations <sup>1</sup>	Iron and steel industry	Other industries	Domestic	Other <sup>2</sup>
1970	5,780	60	244	1,172	3,542	762
1971	7,520	263	343	2,118	3,930	866
1972	9,787	630	437	3,215	4,509	996
1973	10,729	285	396	4,150	4,815	1,083
1974	12,668	985	395	4,635	5,384	1,269
1975	13,112	858	371	4,645	5,891	1,347
Per cent change	+3.5	-12.9	-6.1	+0.2	+9.4	+6.1
1974 3rd quarter	2,181	198	86	1,028	696	173
4th quarter	3,653	211	97	1,260	1,698	387
1975 1st quarter	4,390	207	101	1,281	2,329	472
2nd quarter	2,798	200	91	1,078	1,119	310
3rd quarter	2,067	208	79	994	615	171
4th quarter	3,857	243	100	1,292	1,823	394
1976 1st quarter p	4,765	240	108	1,444	2,403	570
2nd quarter p	2,864	158	112	1,220	1,054	320
3rd quarter p	2,150	122	99	1,066	686	177
Per cent change	+4.0	-41.3	+25.3	+7.2	+11.5	+3.5

1. Public supply power stations only. 2. Public administration & commerce.



# Electricity

TABLE 9. Fuel used and electricity generated by the public supply system

	Fuel used						Electricity generated			Own <sup>5</sup> use	Electricity supplied	Total <sup>6</sup> electricity available
	Total <sup>1</sup>	Coal <sup>2</sup>	Oil <sup>2 3</sup>	Natural gas	Nuclear electricity	Hydro electricity	Total <sup>4</sup>	By steam plant				
								Nuclear	Other			
	Million tons of coal or coal equivalent						TWh					
United Kingdom												
1971	105.95	71.18	24.16	1.05	8.05	1.45	235.74	23.21	207.81	17.74	218.00	222.37
1972	109.37	65.25	31.25	2.48	8.89	1.47	242.75	25.30	212.20	18.05	224.70	229.23
1973	114.68	75.57	28.04	1.13	8.22	1.66	258.80	23.66	229.89	18.43	240.37	244.76
1974	110.49	65.97	28.51	3.86	10.28	1.81	250.47	29.40	215.70	18.07	232.40	236.68
1975	108.97	73.39	21.14	3.37	9.29	1.64	251.26	26.52	219.69	18.02	233.24	237.26
1976 p	108.76	76.59	16.78	2.51	11.22	1.61	254.92	32.42	217.52	19.17	235.75	239.38
Per cent change	-0.2	+4.4	-20.6	-25.4	+20.8	-2.0	+1.5	+22.2	-1.0	+6.4	+1.1	+0.9
1975 Nov	9.35	6.44	1.64	0.33	0.81	0.12	21.55	2.29	18.87	1.53	20.02	20.27
Dec*	12.44	8.57	2.26	0.39	1.05	0.16	28.98	2.99	25.48	2.01	26.97	27.38
1976 Jan	9.58	6.66	1.51	0.34	0.83	0.24	22.36	2.38	19.33	1.62	20.74	21.08
Total	31.37	21.67	5.41	1.06	2.69	0.52	72.89	7.66	63.68	5.16	67.73	68.73
1976 Nov	9.46	6.75	1.41	0.15	1.00	0.14	22.20	2.86	18.93	1.63	20.57	20.84
Dec*	13.40	9.63	2.23	0.16	1.22	0.15	31.33	3.51	27.27	2.28	29.05	29.43
1977 Jan p	11.11	7.97	1.87	0.13	1.00	0.13	25.73	2.90	22.34	1.84	23.89	24.18
Total	33.97	24.35	5.51	0.44	3.22	0.42	79.26	9.27	68.54	5.75	73.51	74.45
Per cent change	+8.3	+12.4	+1.8	-58.5	+19.7	-19.2	+8.7	+21.0	+7.6	+11.4	+8.5	+8.3
England and Wales												
1971	93.40	64.95	20.07	1.05	7.19	0.08	208.07	20.68	186.14	15.33	192.74	195.13
1972	95.63	58.21	26.74	2.48	8.08	0.09	212.91	23.01	187.95	15.71	197.20	200.24
1973	99.43	67.14	23.56	1.13	7.45	0.09	225.24	21.42	202.18	16.24	209.00	212.72
1974	96.09	58.63	24.00	3.86	9.43	0.12	218.85	26.93	190.43	15.90	202.95	205.55
1975	94.62	64.67	17.95	3.37	8.40	0.09	219.25	23.94	194.33	15.32	203.93	206.39
1976 p	94.29	67.97	13.84	2.51	9.84	0.08	222.12	28.30	193.11	15.95	206.17	207.62
Per cent change	-0.4	+5.1	-22.9	-25.4	+17.2	-11.4	+1.3	+18.2	-0.6	+4.1	+1.1	+0.6
1975 Nov	8.14	5.68	1.37	0.33	0.74	0.01	18.85	2.08	16.71	1.29	17.56	17.56
Dec*	10.76	7.50	1.89	0.39	0.96	0.01	25.18	2.71	22.37	1.68	23.50	23.64
1976 Jan	8.23	5.86	1.25	0.34	0.76	0.02	19.32	2.16	17.07	1.35	17.97	18.16
Total	27.13	19.04	4.51	1.06	2.46	0.04	63.35	6.95	56.15	4.32	59.03	59.36
1976 Nov	8.20	6.03	1.15	0.15	0.85	0.01	19.41	2.44	16.91	1.37	18.04	18.15
Dec*	11.59	8.49	1.83	0.16	1.09	0.01	27.22	3.14	23.97	1.88	25.34	25.36
1977 Jan p	9.60	6.97	1.59	0.13	0.89	0.01	22.31	2.57	19.62	1.53	20.78	20.99
Total	29.39	21.49	4.57	0.44	2.83	0.03	68.94	8.15	60.50	4.78	64.16	64.50
Per cent change	+8.3	+12.9	+1.3	-58.5	+15.0	-25.0	+8.8	+17.3	+7.7	+10.6	+8.7	+8.7

1. Including coke. 2. Including quantities used in the production of steam for sale. 3. Including oil used in gas turbine and diesel plant and for lighting up coal fired boilers. 4. Including generation by gas turbine, diesel and hydro-electric plant. 5. Used on works and for pumping at pumped storage stations. 6. Includes net imports and purchases from outside sources mainly UKAEA and British Nuclear Fuels Ltd. The England and Wales figures include net exchanges with Scotland.

TABLE 10. Sales of electricity by the public supply system

GWh

	Total	Iron and steel industry	Other industries	Domestic	Other <sup>1</sup>
1970	197,751	12,004	67,573	77,038	41,136
1971	203,433	10,837	69,337	80,674	42,585
1972	210,417	10,774	68,967	86,889	43,787
1973	225,267	11,646	75,327	91,299	46,995
1974	218,552	11,292	70,967	92,626	43,667
1975	217,765	11,164	70,916	88,938	46,747
Per cent change	-0.4	-1.1	-0.1	-4.0	+7.1
1974 3rd quarter	45,295	2,727	17,522	15,707	9,339
4th quarter	63,009	3,026	19,521	26,804	13,658
1975 1st quarter	65,993	3,103	18,643	30,389	13,858
2nd quarter	50,309	2,732	17,225	19,855	10,497
3rd quarter	42,009	2,407	16,215	14,194	9,193
4th quarter	59,454	2,922	18,833	24,500	13,199
1976 1st quarter p	66,099	3,199	19,578	28,906	14,416
2nd quarter p	48,978	3,062	17,874	17,475	10,567
3rd quarter p	43,235	2,866	17,253	13,745	9,371
Per cent change	+2.9	+19.1	+6.4	-3.2	+1.9

1. Mainly commerce, public administration & agriculture



# Petroleum

TABLE 11. Production, arrivals and shipments<sup>1</sup>

Thousand tonnes

	Crude Petroleum						Petroleum products				
	Gross <sup>2</sup> Indigenous Production	Refinery Receipts				Arrivals <sup>4,5</sup>	Shipments <sup>4,5</sup>	Arrivals <sup>4</sup>	Shipments <sup>4</sup>	Net Arrivals	Bunkers <sup>6</sup>
		Total	Indigenous <sup>2</sup>	Net arrivals	Other <sup>3</sup>						
1971	212	107,031	138	+106,167	726	107,736	1,569	19,071	16,948	+2,123	5,655
1972	333	105,641	226	+104,148	1,267	107,706	3,558	20,440	15,775	+4,665	5,225
1973	373	114,032	235	+112,237	1,560	115,472	3,235	17,808	16,681	+1,127	5,499
1974	410	113,478	250	+111,418	1,810	112,822	1,404	14,256	14,396	-140	4,759
1975	1,564	92,273	1,156	+89,842	1,275	91,366	1,524	12,461	13,664	-1,203	3,444
1976 p	12,036	98,384	11,511	+86,181	692	90,466	4,285	10,449	15,681	-5,232	3,554
Per cent change	(+)	+6.6	(+)	-4.1	-45.7	-1.0	(+)	-16.1	+14.8	(+)	+3.2
1975 Nov	334	7,376	326	+6,954	96	7,169	215	1,322	934	+388	264
Dec	394	7,919	345	+7,460	114	7,598	138	1,488	1,094	+394	316
1976 Jan	355	7,703	372	+7,219	112	7,469	250	825	986	-161	311
Total	1,083	22,998	1,043	+21,633	322	22,236	603	3,635	3,014	+621	891
1976 Nov p	1,641	9,193	1,632	+7,564	-3	8,128	564	566	1,421	-855	319
Dec p	1,988	8,995	1,821	+7,156	18	7,855	699	1,064	1,544	-480	336
1977 Jan p	2,225	7,694	2,083	+5,640	-29	6,463	823	1,204	1,250	-46	253
Total	5,854	25,882	5,536	+20,360	-14	22,446	2,086	2,834	4,215	-1,381	908
Per cent change	(+)	+12.5	(+)	-5.9	(-)	+0.9	(+)	-22.3	+40.5	(-)	+1.9

1. Calendar months. 2. Including natural gas liquids (condensates). 3. Mainly recycled products. 4. Foreign trade as recorded by the Petroleum Industry and may differ from figures published in Overseas Trade Statistics. 5. Including process (partly refined) oils. 6. International bunkers.

TABLE 12. Refinery throughput and output of petroleum products<sup>1</sup>

Thousand tonnes

	Through- put of crude and process oils	Refinery use		Total output of petrol- eum prod- ucts <sup>2</sup>	Gases		Naphtha (LDF)	Motor spirit	Kerosene		Gas/ diesel oil	Fuel oil	Lubri- cating oils	Bitumen
		Fuel	Losses		Butane and propane	Other petro- leum			Aviation turbine fuel	Burning oil <sup>3</sup>				
1971	105,342	6,184	913	98,245	1,236	284	5,728	12,522	3,707	2,540	24,455	43,173	1,429	2,094
1972	106,980	6,420	1,192	99,368	1,463	369	5,728	13,632	4,180	2,649	25,536	41,002	1,333	2,004
1973	114,338	7,053	1,331	105,954	1,655	394	6,607	14,842	4,550	2,717	27,853	42,026	1,477	2,225
1974	111,217	6,946	1,211	103,060	1,602	272	6,448	14,520	4,475	2,564	27,641	40,022	1,455	2,129
1975	93,579	6,031	901	86,647	1,447	151	3,968	13,940	3,959	2,299	23,324	32,711	1,141	2,099
1976 p	97,784	6,342	1,158	90,284	1,575	158	4,583	15,232	4,163	2,458	24,198	32,696	1,310	1,897
Per cent change	+4.5	+5.2	+28.5	+4.2	+8.8	+4.4	+15.5	+9.3	+5.2	+6.9	+3.7	-0.0	+14.8	-9.6
1975 Nov	7,115	470	93	6,552	96	15	403	966	201	224	1,838	2,393	99	173
Dec	8,158	544	63	7,551	142	15	376	1,216	305	248	2,097	2,797	65	144
1976 Jan	8,400	559	60	7,781	157	15	402	1,178	310	262	2,147	2,943	94	121
Total	23,673	1,573	216	21,884	395	45	1,181	3,360	816	734	6,082	8,133	258	438
1976 Nov	8,582	518	84	7,980	143	11	419	1,299	300	287	1,970	3,151	107	167
Dec	8,833	561	184	8,088	151	13	485	1,298	292	292	2,105	3,081	120	108
1977 Jan p	8,145	536	93	7,516	131	13	403	1,153	233	301	2,001	2,899	116	97
Total	25,560	1,615	361	23,584	425	37	1,307	3,750	825	880	6,076	9,131	343	372
Per cent change	+8.0	+2.6	+67.8	+7.8	+7.7	-18.9	+10.7	+11.6	+1.1	+19.9	+0.0	+12.3	+33.0	-14.8

1. Calendar months. 2. Including output of products not shown separately, namely, aviation spirit, wide-cut gasoline, industrial and white spirits, paraffin wax and miscellaneous products. 3. Including vaporising oil.

TABLE 13. Deliveries of petroleum products for inland consumption<sup>1</sup>

Thousand tonnes

	Total <sup>2, 3</sup>	Butane <sup>4</sup> and propane	Naphtha (LDF) <sup>5</sup>	Motor spirit	Kerosene				Gas/diesel oil		Fuel oil	Lubri- cating oils	Bitumen
					Aviation turbine fuel	Burning oil							
						Premier	Standard						
							Domestic	Other <sup>6</sup>					
									Derv fuel	Other			
1971	91,520	1,196	7,623	14,964	3,667	713	1,369	532	5,186	12,569	39,395	1,148	2,208
1972	97,700	1,455	7,391	15,899	3,929	778	1,663	528	5,254	15,113	41,307	1,113	2,203
1973	99,344	1,600	8,373	16,927	4,202	788	1,931	501	5,658	15,100	39,447	1,185	2,458
1974	92,342	1,414	7,700	16,484	3,690	603	1,770	436	5,518	13,581	36,810	1,045	2,241
1975	81,667	1,275	5,116	16,125	3,834	538	1,707	400	5,414	13,050	30,470	992	2,089
1976 p	80,226	1,324	5,385	16,880	3,989	576	1,671	381	5,596	12,977	27,796	1,009	1,871
Per cent change	-1.8	+3.9	+5.3	+4.7	+4.0	+7.1	-2.1	-4.7	+3.4	-0.6	-8.8	+1.8	-10.4
1975 Nov	7,082	108	455	1,252	273	66	151	36	465	1,280	2,684	82	163
Dec	7,731	117	466	1,338	279	98	212	40	437	1,428	3,039	84	128
1976 Jan	7,131	119	458	1,221	299	77	168	35	429	1,324	2,728	77	130
Total	21,944	344	1,379	3,811	851	241	531	111	1,331	4,032	8,451	243	421
1976 Nov	7,192	131	429	1,363	275	72	157	37	488	1,343	2,588	92	159
Dec	7,936	134	413	1,447	284	113	231	43	467	1,530	3,031	84	99
1977 Jan p	7,753	127	501	1,201	296	109	212	39	421	1,598	3,003	82	98
Total	22,881	392	1,343	4,011	855	294	600	119	1,376	4,471	8,622	258	356
Per cent change	+4.3	+14.0	-2.6	+5.2	+0.5	+22.0	+13.0	+7.2	+3.4	+10.9	+2.0	+6.2	-15.4

1. Calendar months. 2. Including other petroleum gases, aviation spirit, wide-cut gasoline, industrial & white spirits, and paraffin wax.

3. Excluding refinery fuel and miscellaneous products. 4. Including very small amounts for petro-chemicals. 5. Now mainly for petrochemical feedstock.

6. Including vaporising oil.



TABLE 14. Inland deliveries of petroleum products used for energy<sup>1, 2</sup>

Thousand tonnes

	Total	Power <sup>3</sup> Stations	Gas Works	Iron and steel industry	Other Industries	Transport <sup>4</sup>	Domestic	Other <sup>5</sup>
1971	81,863	15,058	2,706	5,292	21,068	26,043	3,015	8,681
1972	87,788	19,039	2,249	5,044	21,899	27,152	3,485	8,920
1973	88,196	16,993	2,355	4,995	22,045	28,971	3,812	9,025
1974	81,547	17,240	1,339	4,019	19,695	27,930	3,378	7,946
1975	73,385	13,326	693	3,309	17,251	27,582	3,270	7,954
1976 p	71,472	10,441	366	3,127	17,501	28,602	3,255	8,180
Per cent change	-2.6	-21.6	-47.3	-5.5	+1.4	+3.7	-0.5	+2.8
1975 Oct	6,489	1,067	42	268	1,589	2,508	306	709
Nov	6,352	1,095	47	271	1,658	2,169	318	794
Dec	7,017	1,323	47	265	1,764	2,237	429	952
Total	19,858	3,485	136	804	5,011	6,914	1,053	2,455
1976 Oct	5,820	739	29	263	1,415	2,497	260	617
Nov	6,471	914	25	301	1,723	2,326	329	853
Dec p	7,294	1,260	30	283	1,844	2,391	472	1,014
Total	19,585	2,913	84	847	4,982	7,214	1,061	2,484
Per cent change	-1.4	-16.4	-38.4	+5.3	-0.6	+4.3	+0.7	+1.2

1. Calendar months. 2. Excludes non-energy products and non-energy use of naphtha (LDF).

3. Public supply, railway and transport power stations. 4. Including fishing, coastal and inland shipping.

5. Mainly public administration, commerce and agriculture.

TABLE 15. Stocks of petroleum at end of month

	Held by oil companies <sup>1</sup>		Power stations <sup>2</sup>
	Million tonnes	Estimated days' supply <sup>3</sup>	Million tonnes
1975 Dec	21.6	85	1.02
1976 Jan	20.9	81	0.91
Feb	20.4	85	0.98
1976 Dec	21.7	83	0.84
1977 Jan	20.6	80	0.90
Feb p	20.0	84	0.97

1. Stocks of petroleum products plus the product equivalent of crude and process oils held at refineries, and products in the wholesale distribution system. 2. Fuel oil held at main oil burning stations in Great Britain.

3. Latest three months calculated on forecast deliveries for the ensuing months. Figures for earlier period calculated on actual deliveries.

## APPROXIMATE CONVERSION FACTORS

(last digit rounded to nought or five)

To convert from one fuel to another, multiply by the factor shown

To \ From	Million tons coal equiv.	Million tonnes oil equiv.	Million therms	TWh Electrical energy	TWh Electricity generated
Million tons coal equivalent	1	1.65	0.00390	0.135 <sup>1</sup>	0.500 <sup>2</sup>
Million tonnes oil equivalent	0.600	1	0.00235	0.0800 <sup>1</sup>	0.280 <sup>2</sup>
Million therms	255	425	1	34.0	115
TWh Electrical energy	7.45	12.5	0.0295	1	..
TWh Electricity generated	2.00 <sup>3</sup>	3.60 <sup>3</sup>	0.00880 <sup>3</sup>	..	1

1. The amount of fuel (average grade) equivalent to 1 TWh of energy.

2. The amount of primary fuel (power station grade) to generate 1 TWh.

3. The amount of electricity generated by one million units of the fuel shown. The *Digest of UK Energy Statistics 1976* gives more detailed factors.

## SUPPLEMENTARY DATA

Prices of fuels used by Industry in Great Britain<sup>1</sup>

	Delivered to large industrial consumers <sup>2</sup>					Realised in new and renewed medium size contracts <sup>3</sup>	
	Coal	Heavy Fuel Oil	Gas Oil	Gas	Electricity	Heavy Fuel Oil	Gas Oil
	£ per ton			Pence per therm	Pence per KWh	£ per ton	
1974 2nd quarter	9.1	33.4	50.6	2.78	0.854	34.2	54.3
3rd quarter	9.8	32.8	51.8	3.03	0.924	33.8	54.0
4th quarter	11.8	33.4	51.6	3.44	1.095	40.7	58.2
1975 1st quarter	13.3	38.8	55.0	3.65	1.179	41.1	59.4
2nd quarter	15.1	38.2	54.2	4.15	1.178	40.6	55.5
3rd quarter	14.9	37.5	50.7	4.43	1.249	39.4	54.0
4th quarter	15.6	38.7	53.9	4.84	1.354	46.4	70.3
1976 1st quarter	17.4	42.1	64.0	5.73	1.453	45.3	70.8
2nd quarter	17.8	41.5	62.0	5.72	1.447	44.2	69.5
3rd quarter	18.0	43.1	61.7	6.74	1.461	45.1	70.6
4th quarter p	19.4	47.9	68.2	7.58	1.592	55.2	82.1

1. Prices for oil products include hydrocarbon oil duty.

2. Derived from data relating to purchases received; the data can include business under contracts made in earlier times. Prices vary widely around the average values shown above.

3. Derived from prices reported by the ten main oil marketing companies and relate to average net prices realised on medium sized new contracts or contracts which are renewed at a changed price. The coverage may extend beyond manufacturing industry and may include for example larger commercial users.